

BY

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# NEPHROTIC SYNDROME IN PREGNANCY

# PRESONAL DATA

- × 24 years old female patient  
married with 1 offspring 2years old.
- × Housewife from a village near mansoura.
- × Pregnant 20 weeks .
- × No special habits of medical importance



- ✖ With beginning of her second half of pregnancy ,the patient developed :

Puffiness of the eyelids

swelling of her l.l

high blood pressure

- ✖ The patient had no past history of medical disease

Sudden weight gain



Edema



High blood pressure



The patient sought medical advice at her obstetrician

on physical exam: the patient showed

- ✖ Pallor
- ✖ Bilateral pitting edema I.I
- ✖ Blood pressure: 140/90mm/Hg  
for which she was prescribed  
antihypertensive medication.



# SOME INVESTIGATIONS WERE DONE

× Blood picture:

WBCs:14.5

Hgb :7.4 g/dl

mcv:81

Plt :500,000

× S.creat:0.7

× S.albumin:1.9

× S.cholesterol:264

## Urine analysis revealed

- ✖ Protein:+++
- ✖ Pus cells:15\_20
- ✖ RBCs:8-10
- ✖ Nitrite:+++

24 hour protein quantification : **9gm/day**

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- Pelvi/abd ultrasonography:

2 Living intrauterine fetuses in two separate sacs 20 weeks ,single high placenta.

- Renal U/S:

- ✗ Rt kidney:11\*4
- ✗ Lt kidney:10.5\*4.5
- ✗ Parenchymal thickness in both:22mm
- ✗ Bilat grade I echogenecity
- ✗ Bilat back pressure





# THE PATIENT WAS REFERRED FOR NEPHROLOGICAL CONSULTATION

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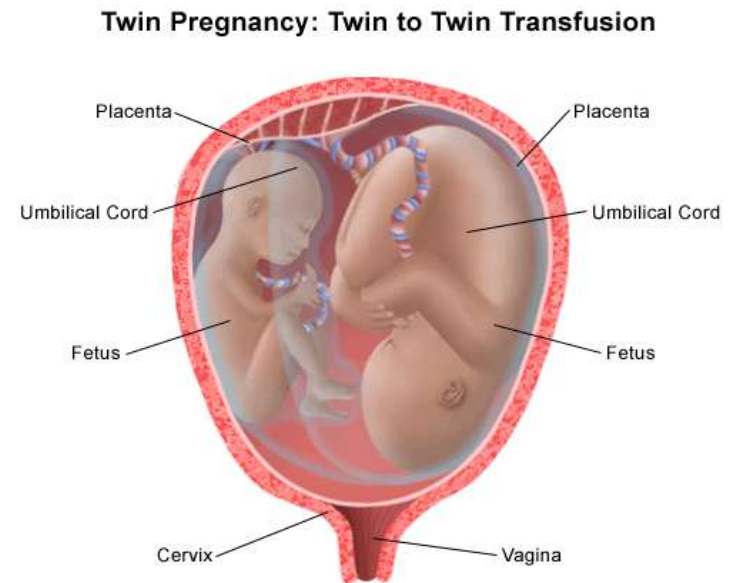
Some investigations were done:

- × ANA:-ve
- × Anti-dsDNA:-ve
- × Uric acid:6.4mg/dl

# SO TO CONCLUDE

We have a pregnant female 20 weeks with

- ✗ Proteinuria: 9gm/day
- ✗ Mild HTN
- ✗ Normal serum creatinine



# SO WE HAVE SOME DD

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Pregnancy  
related?

- Pre-eclampsia?

Pregnancy  
unrelated?

- Adult onset nephrotic syndrome.

# WE HAVE A DEBATE



- ✖ A. Two groups had a debate about doing kidney biopsy ?
- ✖ B. In case it is pre-eclampsia,  
should we terminate pregnancy at this time?
- ✖ C. In case it is not pre-eclampsia  
should we start immunosuppression soon?

# AFTER TOO MUCH DEBATE

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- ✖ We took a decision to continue pregnancy
- ✖ To postpone the biopsy
- ✖ To start on high dose steroid



# THE PATIENT CONTINUED HER PREGNANCY UNDER OBSERVATION IN THE OBSTETRIC WARD

- ✖ Close fetal and maternal monitoring
- ✖ On High dose steroid
- ✖ Alpha methyl dopa as an antihypertensive and was controlled.



# FOLLOW UP INVESTIGATIONS SHOWED

8 weeks later

28<sup>th</sup>  
week

- × S.creat:0.8
- × S.albumin:2.3
- × S.uric acid:9.8
- × LFTs: N
- × Blood picture:

WBCs:33,000 mainly neutrophilia

Hgb :8.9

Plt :560,000

## 3 DAYS LATER:

28<sup>th</sup> week

The patient had

- ✗ premature rupture of membranes.
- ✗ severe HTN

- ✗ **A decision of Termination Of Pregnancy was taken and unfortunately resulted in 1 IUFD and 1 stillbirth.**



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**ARE WE CONFRONTED WITH A CASE OF  
SEVERE PREECLAMPSIA?**



# 2 WEEKS POSTPARTUM

- ✗ The patient is still hypertensive
- ✗ Urinary protein :8gm/day
- ✗ S.creat:1.5
- ✗ S.albumin:1.7
- ✗ S.Cholesterol: 355
- ✗ INR:1.1
- ✗ ESR:110
- ✗ Urine analysis:

Protein:+++

Pus cells above 100

RBCs: 7-9/HPF



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## Abdominal U/S:

- × Rt kidney:11\*4 ,
- × Lt kidney:10.5\*4.5.
- × Parenchymal thickness in both:20mm.
- × Bilat grade I echogenecity,
- × Bilat back pressure.
- × moderate hepatomegaly.

# SO AGAIN

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Is it a case of antepartum preeclampsia with delayed recovery?

A case of glomerulonephritis?

AT THIS POINT: WOULD YOU GO FOR BIOPSY?

Renal biopsy was considered again



But there was an obstacle

# 2 WEEKS POSTPARTUM

- ✗ The patient is still hypertensive
- ✗ Urinary protein :8gm/day
- ✗ S.creat:1.4
- ✗ S.albumin:1.7
- ✗ INR:1.1

- ✗ Urine analysis:

Protein:+++

Pus cells above 100

RBCs: 7-9/HPF

Urine culture was ordered



# SO BIOPSY WAS POSTPONED AGAIN



# THE PATIENT KEPT ON

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- × Broad spectrum antibiotic
- × 60 mg prednisone
- × Captopril 50mg
- × Amlodipine 10mg
- × Furosemide:160mg





# FOLLOW UP BLOOD PICTURES

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**13/8/2014**



**WBCs:21.6**  
Neutrophils:77%



**HGB:9**



**PLT:773,000**

**21/8/2014**



**WBCs:19.7**  
Mainly neutrophils



**HGB:9**



**PLT:899,000**

Persistent leucocytosis and thrombocytosis ?

Is there is a relation between  
hematological disorder and G.N.?

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**SO BONE MARROW ASPIRATION WAS DONE**

# AFTER 1 WEEK

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## × Urine analysis

Protein:+++

Pus cells :3-5/HPF

RBCs: 1-3/HPF

## × Blood picture:

WBCs:14.5

Hgb :8.1

Plt :900,000

# FOLLOW UP URINE ANALYSIS

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After UTI has been controlled

## ✖ Urine analysis

Protein:+++

Pus cells :3-5/HPF

RBCs: 1-3/HPF

# BONE MARROW REPORT

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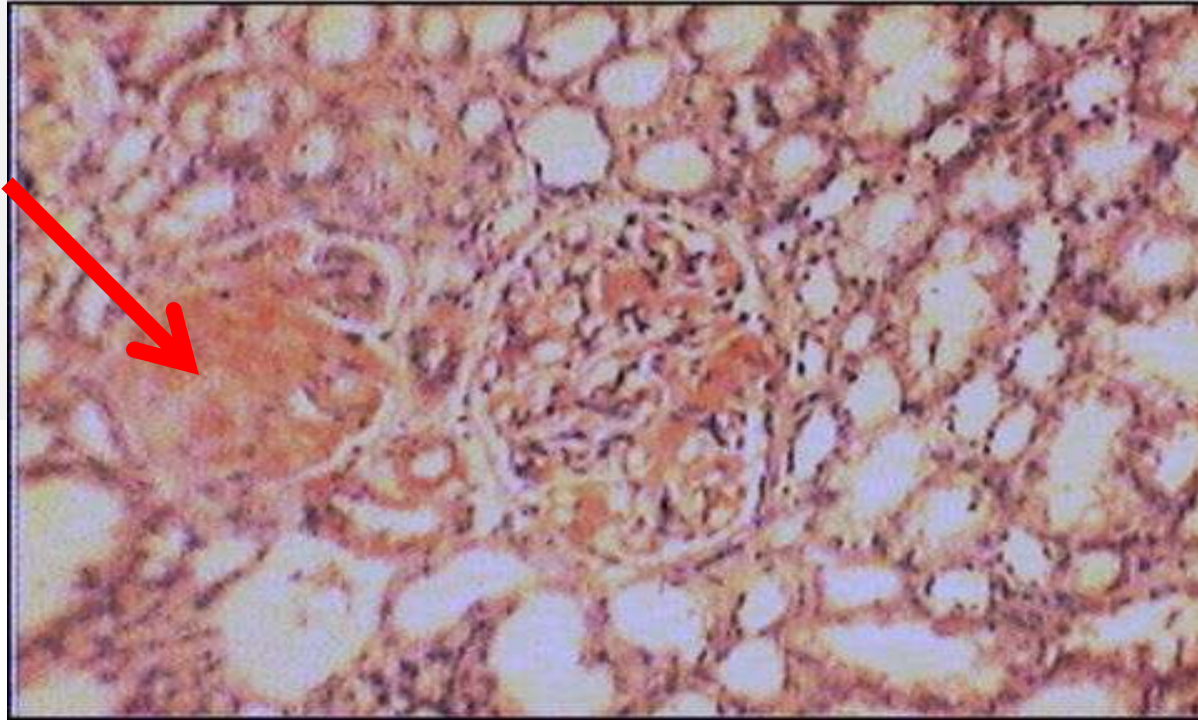
- × Hypercellular bone marrow
- × Some dyserythropoiesis
- × Mature,immature megakaryocyte



unremarkable

# FINALLY THE PATIENT UNDERGONE RENAL BIOPSY

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**Name:** شيماء رضا عشرى

**Age:** 24 years

**Date:** 30/8/2014

**Biopsy No.:** 08-063-14

**Referred by:** Dr. Mohammad Kamal

**Clinical diagnosis:**

Nephrotic syndrome . Rising serum creatinine up to 2.4

**Gross appearance:**

Two cores of needle biopsy tissue were received & were processed for paraffin sections and stained for routine kidney stains HX & E, PAS , Masson trichrome , congo red and PASM stains.

**Microscopic examination:**

Biopsy shows 5 glomeruli /section.

**GLOMERULI:** All the glomeruli show broad mesangium irregular basement membrane thickening by a congo red positive amyloid material which has an apple green birefringence

**TUBULES** Focal peritubular deposits

**INTERSTITIUM:** Focal interstitial deposits

**BLOOD VESSELS:** Focal arteriolar deposits

**Diagnosis:** Renal amyloidosis

**Signature**



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× Biopsy shows:

- × GLOMERULI: all glomeruli show broad mesangium with irregular basement membrane thickening by a congo red positive amyloid material which has an apple green birefringence
- × TUBULES:focal peritubular deposits
- × INTERSTITIUM:focal interstitial deposits
- × BLOOD VESSELS: focal arteriolar deposits



# WAITING YOUR COMMENTS



**THANK  
YOU**



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**TO BE CONTINUED.....**